

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/530,844 A
Source: PCT
Date Processed by STIC: 3/10/06

ENTERED



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/530,844A

DATE: 03/10/2006
TIME: 10:34:23

Input Set : A:\PTO.ss.txt
Output Set: N:\CRF4\03092006\J530844A.raw

```

3 <110> APPLICANT: Consortium fur elektrochemische Industrie GmbH
6 <120> TITLE OF INVENTION: Feedback-resistant homoserine-Transsuccinylases
having a modified C-
7      terminus
10 <130> FILE REFERENCE: Co10221
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/530,844A
C--> 13 <141> CURRENT FILING DATE: 2005-04-08
15 <160> NUMBER OF SEQ ID NOS: 12
17 <170> SOFTWARE: PatentIn Ver. 2.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 930
21 <212> TYPE: DNA
22 <213> ORGANISM: Escherichia coli
24 <220> FEATURE:
25 <221> NAME/KEY: CDS
26 <222> LOCATION: (1)..(930)
28 <300> PUBLICATION INFORMATION:
29 <301> AUTHORS: Blattner, F. R.
30 <302> TITLE: The complete genome sequence of Escherichia coli K-12.
31 <303> JOURNAL: Science
32 <304> VOLUME: 277
33 <305> ISSUE: 533
34 <306> PAGES: 1453-1474
35 <307> DATE: 1997
37 <400> SEQUENCE: 1
38 atg ccg att cgt gtg ccg gac gag cta ccc gcc gtc aat ttc ttg cgt    48
39 Met Pro Ile Arg Val Pro Asp Glu Leu Pro Ala Val Asn Phe Leu Arg
40      1           5           10          15
42 gaa gaa aac gtc ttt gtg atg aca act tct cgt gcg tct ggt cag gaa    96
43 Glu Glu Asn Val Phe Val Met Thr Ser Arg Ala Ser Gly Gln Glu
44      20          25          30
48 att cgt cca ctt aag gtt ctg atc ctt aac ctg atg ccg aag aag att   144
49 Ile Arg Pro Leu Lys Val Leu Ile Leu Asn Leu Met Pro Lys Lys Ile
50      35          40          45
52 gaa act gaa aat cag ttt ctg cgc ctg ctt tca aac tca cct ttg cag   192
53 Glu Thr Glu Asn Gln Phe Leu Arg Leu Leu Ser Asn Ser Pro Leu Gln
54      50          55          60
56 gtc gat att cag ctg ttg cgc atc gat tcc cgt gaa tcg cgc aac acg   240
57 Val Asp Ile Gln Leu Leu Arg Ile Asp Ser Arg Glu Ser Arg Asn Thr
58      65          70          75          80
60 ccc gca gag cat ctg aac aac ttc tac tgt aac ttt gaa gat att cag   288
61 Pro Ala Glu His Leu Asn Asn Phe Tyr Cys Asn Phe Glu Asp Ile Gln
62      85          90          95
64 gat cag aac ttt gac ggt ttg att gta act ggt gcg ccg ctg ggc ctg   336

```

RAW SEQUENCE LISTING

DATE: 03/10/2006

PATENT APPLICATION: US/10/530,844A

TIME: 10:34:23

Input Set : A:\PTO.ss.txt

Output Set: N:\CRF4\03092006\J530844A.raw

65 Asp Gln Asn Phe Asp Gly Leu Ile Val Thr Gly Ala Pro Leu Gly Leu
 66 100 105 110
 68 gtg gag ttt aat gat gtc gct tac tgg ccg cag atc aaa cag gtg ctg 384
 69 Val Glu Phe Asn Asp Val Ala Tyr Trp Pro Gln Ile Lys Gln Val Leu
 70 115 120 125
 72 gag tgg tcg aaa gat cac gtc acc tcg acg ctg ttt gtc tgc tgg gcg 432
 73 Glu Trp Ser Lys Asp His Val Thr Ser Thr Leu Phe Val Cys Trp Ala
 74 130 135 140
 76 gta cag gcc gcg ctc aat atc ctc tac ggc att cct aag caa act cgc 480
 77 Val Gln Ala Ala Leu Asn Ile Leu Tyr Gly Ile Pro Lys Gln Thr Arg
 78 145 150 155 160
 80 acc gaa aaa ctc tct ggc gtt tac gag cat cat att ctc cat cct cat 528
 81 Thr Glu Lys Leu Ser Gly Val Tyr Glu His His Ile Leu His Pro His
 82 165 170 175
 84 gcg ctt ctg acg cgt ggc ttt gat gat tca ttc ctg gca ccg cat tcg 576
 85 Ala Leu Leu Thr Arg Gly Phe Asp Asp Ser Phe Leu Ala Pro His Ser
 86 180 185 190
 88 cgc tat gct gac ttt ccg gca gcg ttg att cgt gat tac acc gat ctg 624
 89 Arg Tyr Ala Asp Phe Pro Ala Ala Leu Ile Arg Asp Tyr Thr Asp Leu
 90 195 200 205
 92 gaa att ctg gca gag acg gaa gaa ggg gat gca tat ctg ttt gcc agt 672
 95 Glu Ile Leu Ala Glu Thr Glu Glu Gly Asp Ala Tyr Leu Phe Ala Ser
 96 210 215 220
 98 aaa gat aag cgc att gcc ttt gtg acg ggc cat ccc gaa tat gat gcg 720
 99 Lys Asp Lys Arg Ile Ala Phe Val Thr Gly His Pro Glu Tyr Asp Ala
 100 225 230 235 240
 102 caa acg ctg gcg cag gaa ttt ttc cgc gat gtg gaa gcc gga cta gac 768
 103 Gln Thr Leu Ala Gln Glu Phe Phe Arg Asp Val Glu Ala Gly Leu Asp
 104 245 250 255
 106 ccg gat gta ccg tat aac tat ttc ccg cac aat gat ccg caa aat aca 816
 107 Pro Asp Val Pro Tyr Asn Tyr Phe Pro His Asn Asp Pro Gln Asn Thr
 108 260 265 270
 110 ccg cga gcg agc tgg cgt agt cac ggt aat tta ctg ttt acc aac tgg 864
 111 Pro Arg Ala Ser Trp Arg Ser His Gly Asn Leu Leu Phe Thr Asn Trp
 112 275 280 285
 114 ctc aac tat tac gtc tac cag atc acg cca tac gat cta ccg cac atg 912
 115 Leu Asn Tyr Tyr Val Tyr Gln Ile Thr Pro Tyr Asp Leu Arg His Met
 116 290 295 300
 118 aat cca acg ctg gat taa 930
 119 Asn Pro Thr Leu Asp
 120 305
 123 <210> SEQ ID NO: 2
 124 <211> LENGTH: 309
 125 <212> TYPE: PRT
 126 <213> ORGANISM: Escherichia coli
 128 <400> SEQUENCE: 2
 129 Met Pro Ile Arg Val Pro Asp Glu Leu Pro Ala Val Asn Phe Leu Arg
 130 1 5 10 15
 132 Glu Glu Asn Val Phe Val Met Thr Thr Ser Arg Ala Ser Gly Gln Glu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/530,844A

DATE: 03/10/2006
TIME: 10:34:23

Input Set : A:\PTO.ss.txt
Output Set: N:\CRF4\03092006\J530844A.raw

133	20	25	30
135	Ile Arg Pro Leu Lys Val Leu Ile Leu Asn Leu Met Pro Lys Lys Ile		
136	35	40	45
138	Glu Thr Glu Asn Gln Phe Leu Arg Leu Leu Ser Asn Ser Pro Leu Gln		
139	50	55	60
143	Val Asp Ile Gln Leu Leu Arg Ile Asp Ser Arg Glu Ser Arg Asn Thr		
144	65	70	75
146	Pro Ala Glu His Leu Asn Asn Phe Tyr Cys Asn Phe Glu Asp Ile Gln		
147	85	90	95
149	Asp Gln Asn Phe Asp Gly Leu Ile Val Thr Gly Ala Pro Leu Gly Leu		
150	100	105	110
152	Val Glu Phe Asn Asp Val Ala Tyr Trp Pro Gln Ile Lys Gln Val Leu		
153	115	120	125
155	Glu Trp Ser Lys Asp His Val Thr Ser Thr Leu Phe Val Cys Trp Ala		
156	130	135	140
158	Val Gln Ala Ala Leu Asn Ile Leu Tyr Gly Ile Pro Lys Gln Thr Arg		
159	145	150	155
161	160	165	170
162	Thr Glu Lys Leu Ser Gly Val Tyr Glu His His Ile Leu His Pro His		
164	175	180	185
165	Ala Leu Leu Thr Arg Gly Phe Asp Asp Ser Phe Leu Ala Pro His Ser		
167	190	195	200
168	Arg Tyr Ala Asp Phe Pro Ala Ala Leu Ile Arg Asp Tyr Thr Asp Leu		
170	205	210	215
171	220	225	230
173	240	235	230
174	240	245	250
176	Gln Thr Leu Ala Gln Glu Phe Phe Arg Asp Val Glu Ala Gly Leu Asp		
177	255	250	255
179	Pro Asp Val Pro Tyr Asn Tyr Phe Pro His Asn Asp Pro Gln Asn Thr		
180	270	265	260
182	Pro Arg Ala Ser Trp Arg Ser His Gly Asn Leu Leu Phe Thr Asn Trp		
183	285	280	275
185	Leu Asn Tyr Tyr Val Tyr Gln Ile Thr Pro Tyr Asp Leu Arg His Met		
186	300	295	290
190	Asn Pro Thr Leu Asp		
191	305		
194	<210> SEQ ID NO: 3		
195	<211> LENGTH: 34		
196	<212> TYPE: DNA		
197	<213> ORGANISM: Artificial Sequence		
199	<220> FEATURE:		
200	<223> OTHER INFORMATION: Description of Artificial Sequence: Primer for		
PCR			
203	<400> SEQUENCE: 3		
204	ctatggta gtgaataata gtactgagct ctgg		34
207	<210> SEQ ID NO: 4		
208	<211> LENGTH: 34		
209	<212> TYPE: DNA		
210	<213> ORGANISM: Artificial Sequence		

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/530,844A

DATE: 03/10/2006
TIME: 10:34:23

Input Set : A:\PTO.ss.txt
Output Set: N:\CRF4\03092006\J530844A.raw

212 <220> FEATURE:
213 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer for
PCR
216 <400> SEQUENCE: 4
217 ctgggtggata tatgagatct gtagacgta atag 34
220 <210> SEQ ID NO: 5
221 <211> LENGTH: 33
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer for
PCR
229 <400> SEQUENCE: 5
230 tgggtggatat atgagatctg gtagacgtaa tag 33
233 <210> SEQ ID NO: 6
236 <211> LENGTH: 34
237 <212> TYPE: DNA
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer for
PCR
244 <400> SEQUENCE: 6
245 gtattttgtta gtgaataata gtactgagct ctgg 34
248 <210> SEQ ID NO: 7
249 <211> LENGTH: 33
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
254 <223> OTHER INFORMATION: Description of Artificial Sequence: Changes in
Met A structural gene
256 <400> SEQUENCE: 7
257 tcatatatatcc accagctatt ttgttagtgaa taa 33
260 <210> SEQ ID NO: 8
261 <211> LENGTH: 10
262 <212> TYPE: PRT
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: Description of Artificial Sequence: Changes in
protein encoded by altered
267 Met A structural
268 gene
270 <400> SEQUENCE: 8
271 Ser Tyr Ile His Gln Leu Phe Val Ser Glu
272 1 5 10
275 <210> SEQ ID NO: 9
276 <211> LENGTH: 102
277 <212> TYPE: DNA
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Description of Artificial Sequence: Changes in
Met A structural gene
285 <400> SEQUENCE: 9
286 tcatatatatcc accactattt ttgttagtgaa aatagtactg agctctggat gcatacgcgt 60

288 ttaattaagc ggccgcactg cgatgagtgg cagggcgaaa cg
291 <210> SEQ_ID_NO: 10

102

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/530,844A

DATE: 03/10/2006
TIME: 10:34:23

Input Set : A:\PTO.ss.txt
Output Set: N:\CRF4\03092006\J530844A.raw

292 <211> LENGTH: 34
293 <212> TYPE: PRT
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: Description of Artificial Sequence: Changes in
Protein encoded by altered
298 Met A structural
299 gene
301 <400> SEQUENCE: 10
302 Ser Tyr Ile His His Tyr Leu Leu Val Asn Asn Ser Thr Glu Leu Trp
303 1 5 10 15
305 Met His Thr Arg Leu Ile Lys Arg Pro His Cys Asp Glu Trp Gln Gly
306 20 25 30
308 Gly Ala
312 <210> SEQ ID NO: 11
313 <211> LENGTH: 102
314 <212> TYPE: DNA
315 <213> ORGANISM: Artificial Sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Description of Artificial Sequence: Changes in
Met A structural gene
320 <400> SEQUENCE: 11
321 tcatataatcc accagttttt gttagtgaat aatagtactg agctctggat gcatacgcgt 60
323 ttaattaagg ggccgcactg cgatgagtgg cagggcgaaa cg 102
326 <210> SEQ ID NO: 12
327 <211> LENGTH: 34
328 <212> TYPE: PRT
329 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: Description of Artificial Sequence: Changes in
protein encoded by altered
335 Met A structural
336 gene
338 <400> SEQUENCE: 12
339 Ser Tyr Ile His Gln Tyr Leu Leu Val Asn Asn Ser Thr Glu Leu Trp
340 1 5 10 15
342 Met His Thr Arg Leu Ile Lys Arg Pro His Cys Asp Glu Trp Gln Gly
343 20 25 30
345 Gly Ala

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/10/2006
PATENT APPLICATION: US/10/530,844A TIME: 10:34:24

Input Set : A:\PTO.ss.txt
Output Set: N:\CRF4\03092006\J530844A.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 1,2,5,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:1; Line(s) 28,29,30,31,32,33,34,35,37,38,39,40,41,42,43,44,45,48,49,50
Seq#:1; Line(s) 51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70
Seq#:1; Line(s) 71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90
Seq#:1; Line(s) 91,92,95,96,97,98,99,100,101,102,103,104,105,106,107,108
Seq#:1; Line(s) 109,110,111,112,113,114,115,116,117,118,119,121,122,123
Seq#:2; Line(s) 124,125,126,127,128,129,130,131,132,133,134,135,136,137,138
Seq#:2; Line(s) 139,142,143,144,145,146,147,148,149,150,151,152,153,154,155
Seq#:2; Line(s) 156,157,158,159,160,161,162,163,164,165,166,167,168,169,170
Seq#:2; Line(s) 171,172,173,174,175,176,177,178,179,180,181,182,183,184,185
Seq#:2; Line(s) 186,189,190,191,192,193,194
Seq#:3; Line(s) 195,196,197,198,199,200,202,203,204,205,206,207
Seq#:4; Line(s) 208,209,210,211,212,213,215,216,217,218,219,220
Seq#:5; Line(s) 221,222,223,224,225,226,228,229,230,231,232,233
Seq#:6; Line(s) 236,237,238,239,240,241,243,244,245,246,247,248
Seq#:7; Line(s) 249,250,251,252,253,255,256,257,258,259,260
Seq#:8; Line(s) 261,262,263,264,265,266,269,270,271,272,273,274,275
Seq#:9; Line(s) 276,277,278,279,280,284,285,286,287,288,289,290,291
Seq#:10; Line(s) 292,293,294,295,296,297,300,301,302,303,304,305,306,307
Seq#:10; Line(s) 308,309,310,311,312
Seq#:11; Line(s) 313,314,315,316,317,319,320,321,322,323,324,325,326
Seq#:12; Line(s) 327,328,329,332,333,334,337,338,339,340,341,342,343,344
Seq#:12; Line(s) 345,346,347,348,349

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/530,844A

DATE: 03/10/2006

TIME: 10:34:24

Input Set : A:\PTO.ss.txt

Output Set: N:\CRF4\03092006\J530844A.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date